

Operation Allied Force

The View from Beijing

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Editorial Abstract: This article addresses China's perspective on several key issues involving the US Air Force and NATO with regard to Operation Allied Force in the Balkans conflict, particularly the bombing of the Chinese Embassy. Coming from open sources, this perspective is particularly important today because China remains a country of great importance, not only to Asian but also world economic stability and security. The evolution in war fighting from the Gulf War to the Kosovo conflict impressed upon the Chinese the increasing role of precision strike and space-supported information operations in asymmetric warfare. It also showed them how their country stacks up to the West in terms of technological military strength. What the Chinese lack in technology they intend to offset by keying on enemy vulnerabilities. The message is clear that in order to better appreciate future East-West relations, we must pay close attention to how China views the recent Balkans situation.

WHEN THE NORTH Atlantic Treaty Organization (NATO) began bombing Yugoslavia, the Chinese press reacted with a storm of furious complaints that rose to a crescendo after the attack on the Chinese Embassy in Belgrade on 7 May 1999. Although the tone eventually softened somewhat, Chinese opposition to Operation Allied Force remained outspoken, and press coverage heavily stressed the Yugoslavian point of view. Do articles in open sources shed light on Chinese military thought, or are they sheer propaganda? This article argues that despite the venomous rhetoric which reflects the Chinese government's displeasure with US actions in the Balkans, Chinese writings on Allied Force are indeed important sources of information and speculation about the nature of future warfare and the revolution in military affairs.

Chinese open sources naturally have their limitations and should be used cautiously. Many important Chinese strategists are not permitted to publish in the open press.¹ The influence on official Chinese policy of those



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who do publish is often impossible to gauge since many articles are unattributed, provide no information about the author, or are pseu-

- NATO mistakes and weaknesses revealed by Allied Force.
- Bombing of the Chinese Embassy.
- Allied Force's lessons for China.

The Chinese considered that [the rationales for Allied Force] . . . included removing obstacles to NATO's eastward expansion, reducing Russia's sphere of influence, and using NATO as a tool for "global hegemony."

donymous. Articles in periodicals owned by the People's Republic of China (PRC) usually assume a bombastic tone and employ Aesopian language or other forms of indirection to confuse the unwary reader. Despite these drawbacks, one can glean valuable insights from the open literature, and analysis must begin with consideration of sources. For example, China's National Defense University (NDU) and Academy of Military Sciences (AMS) are the leading think tanks of the People's Liberation Army (PLA), and their staff and alumni have written extensively on future warfare and the revolution in military affairs.² Articles by authors affiliated with these institutions, therefore, deserve close attention. Chinese leaders educate their domestic audience on strategic and political issues by means of the PLA newspaper *Jiefangjun Bao* and the Communist party newspapers *Renmin Ribao* and *Guangming Ribao*. Authors in these publications are military officers and party members, and their views, which represent the official "party line," also deserve attention. This article examines these and other sources³ and focuses on Chinese views of six topics:

- American political purposes in launching the air campaign.
- Implications of Allied Force for future warfare.
- Information operations before and during the campaign.

Political Purposes

Most Chinese sources strongly criticized the use of force without United Nations sanction and rejected the ostensible rationales for Allied Force—to protect human rights and halt ethnic cleansing.⁴ They noted that these rationales could be used to justify intervention practically anywhere on Earth, since a great many countries have ethnic conflicts in progress, and intervening on behalf of separatists in Kosovo would only encourage separatists elsewhere. Moreover, they believed that these rationales were simply fig leaves used to cover larger American geopolitical purposes. The Chinese considered that these purposes included removing obstacles to NATO's eastward expansion, reducing Russia's sphere of influence, and using NATO as a tool for "global hegemony."

Many Chinese journalists interpreted Allied Force as "anti-Russian" in character, noting that NATO expanded eastward in order to occupy Russia's "strategic space" (the traditional Russian sphere of influence in Eastern Europe) and deprive that country of a base for resurgence in Europe.⁵ Hungary, Poland, and the Czech Republic enthusiastically embraced NATO, but the Federal Republic of Yugoslavia (FRY), which has always had good relations with Russia, represented an obstacle to further expansion. Air strikes and the occupation of Kosovo split and weakened the FRY, thereby punishing a traditional Russian ally and setting the stage for further NATO expansion. NATO's use of force without authorization of the United Nations Security Council diminished Russia's role in European security and the international community.

Some journalists contended that the next step in the "strategic conspiracy" is to expand

NATO's area of interest into Central Asia, the Middle East, and even the Asia-Pacific region.⁶ Another author considered that one goal of Allied Force was to "open up the Balkan corridor" to the military, political, and economic influence of the European Union, which would serve to secure a land/river route for the flow of oil and gas from the Caucasus and Central Asia to Western Europe.⁷ The author predicted that in the aftermath of the Balkan war, the United States would intensify its efforts to contain China. Containment would entail supporting India's missile programs, encouraging separatists in Xinjiang and territorial disputes in the South China Sea, and strengthening the defenses of Taiwan and Japan.⁸

Senior Col Yao Youzhi of the AMS argued that Eurasia plays a "decisive position in global geopolitical strategies." He claimed that the United States views North America as its base, South America as its backyard, Africa as a "broken continent that cannot be lifted up," and Eurasia as the "serious hidden danger to global dominance." America plans to control Eurasia by keeping Russia weak, manipulating NATO, and containing China through military alliances with Japan, South Korea, Taiwan, Australia, and New Zealand.⁹

Another researcher at the AMS, Cheng Guangzhong, interpreted Allied Force from the standpoint of geopolitics, contending that after the cold war, the United States became a python: "It uses its thickset body to coil tightly around the world, and prevent any country from possessing the ability to stand up to it." Currently, the python is principally concerned with tightening its control of Eurasia through NATO expansion into Eastern Europe, dual containment of Iraq and Iran, and expansion of the US-Japanese alliance.¹⁰

According to Cheng, Kosovo was an important step in the implementation of the Python Strategy. In Allied Force, the United States experimented with an expanded role for NATO in order to set the stage for future globalization of the alliance. NATO expansion "further squeezed the strategic space of



B-2 taking off from Guam during a Pacific deployment

Russia" and intensified the antagonism between Western Europe and Russia. The punishment of Yugoslavia removed an obstacle to NATO expansion and built a bridge between Europe and strategically important peripheral regions in the Black Sea and Caspian Sea. Weakening Russia and expanding NATO will permit the United States to shift its strategic emphasis to the Pacific, and, in this respect, Kosovo was "an important preemptive chess move for a possible conflict with China in the 21st century."¹¹

These darkly suspicious—even paranoid—views of the United States in some ways recall Chinese propaganda during the Korean and Vietnam Wars, but we have no way to determine whether Chinese leaders actually believe their rhetoric. However, Allied Force may well have strengthened a preexisting tendency to believe that an eventual clash with the United States—especially over Taiwan—is probable and that China should prepare its defenses accordingly. If so, then China will doubtless revise her military doctrine to incorporate the lessons of Allied Force.

Kosovo and Future Warfare

The Gulf War was a powerful incentive for China to modernize its military, and the Chinese have devoted considerable effort to deriving the correct lessons from this war.¹² After the Gulf War, Chinese military writings emphasized the importance of airpower; long-range precision strikes; information war-



B-2 dropping precision-guided weapons

fare (IW); and small, well-trained ground forces. Chinese writings stressed that an inferior force could defeat a superior force by means of "nonlinear" or asymmetric methods, such as preemptive blows on key centers of gravity.¹³ Allied Force has drawn Chinese attention away from the problems of repelling large US ground forces and has focused greater attention on issues of air defense (particularly cruise missile defense), electronic warfare (EW), and IW. Moreover, Chinese authors are more aware than ever of the importance of space control to US military operations.

Professor Zhang Zhaozhong of China's NDU asserted that before the air strike, NATO had "already told the FRY what targets it planned to hit, including the time and method." This showed the transparency of the modern battlefield and NATO's desire to "threaten the FRY psychologically" with its ability to place every strategic target under accurate surveillance. The characteristics of the NATO air strike were as follows:

- Long-range cruise missiles were coordinated with short-range weapons and high-altitude bombing.
- All strikes were carefully planned and executed, and every move underwent intensive computer simulation.
- Yugoslavian air defenses and command and control (C2) systems were struck for three days (a much shorter period than during the Gulf War), after which,

strikes focused on ground troops and logistics.

- Attacks came from all directions, in all weather, and at all times of the day.
- Attacks escalated in three ways: in types of targets (from air defense and C2, to ground troops, to economic targets), in geographic region (from south of the 44th parallel to north of it), and in intensity (additional forces joined the attack after the first three days).¹⁴

Ji Wenming of the General Staff Office noted that the air strike was a "war of all dimensions" (sea, air, land, space, and the electromagnetic spectrum) and that the wars in each dimension were launched "in intrinsic coordination." Intensive surveillance from space and EW preceded the air strikes and ensured that NATO was in a superior "information situation." Although US, British, and French forces predominated, the air strike involved many nations and was a "basically successful" multinational, unified action. Ji considered that NATO logistic support was highly effective, particularly in the realms of in-flight refueling, preparation and launching of cruise missiles, and ability to achieve a rapid aircraft-sortie rate.¹⁵

Su Size noted that the increased use of precision-guided munitions and advanced imaging technology in Yugoslavia showed that Allied Force had a "higher information technological level" than Operation Desert Storm. Su pointed out that Allied Force demonstrated several other trends that would be prominent in "local high-tech wars" of the future:

- Aircraft will fly at lower altitudes in order to recognize targets, despite the danger from antiaircraft fire.
- All targets will be nodes of a network, and the most critical node will be the "supreme command headquarters." Su observed that presidential palaces were bombed in both Serbia and Iraq.

- Defenders will wage an anti-information campaign with counterstealth, counter-reconnaissance, and counterelectronic warfare components and will employ flexible tactics, dispersion, concealment, and the use of decoys. In addition to passive measures, the defense will strike back at the offense with electronic interference and network intrusions.
- The demarcation between strategic and tactical weapons and systems will become more obscure, as will the distinctions among the military services and between front and rear.
- “Large-scale annihilation of the enemy’s effective strength will no longer be regarded as the target of war.”
- Administrative structures will be streamlined, and command structures will be “short in length and wide in breadth.”
- “Unconventional, asymmetric, nonlinear, nondeterministic, and nontraditional” methods will be used. Commanders and soldiers will be encouraged to be creative, and military training will seek to cultivate “independent and active combat skills.”¹⁶

Several Chinese authors asserted that Allied Force was an example of American asymmetric warfare against the FRY. Senior Col Jia Weidong, for example, defined asymmetrical warfare as “avoiding strengths to attack weaknesses.” The US Air Force specializes in asymmetrical warfare based on technological and information superiority, and this depends on “a perfect global early warning reconnaissance and intelligence system,” navigation by means of the Global Positioning System (GPS), and precision-guided munitions. Jia considered that asymmetrical warfare is developing into “no-contact warfare” that strikes the enemy and leaves him unable to retaliate, thus reducing American risks and combat losses. Integrated use of space, air,

land, sea, and electronic forces makes “asymmetrical warfare much smarter.”¹⁷

Several Chinese authors asserted that Allied Force was an example of American asymmetric warfare against the FRY.

Jia also asserted that the “age of smart warfare has arrived” and that traditional ideas of warfare are no longer valid. Massed tank battles “will no longer be seen again,” and China will be faced “mostly with an enemy who uses advanced smart weapons and long-range precision guided weapons to launch asymmetrical strikes.” PLA weapons will remain inferior to American weapons for a long time, and closing the technology gap is an urgent task for China. The PLA must increase the “S&T [science and technology] information quality” of its officers and men, “stressing information as a new combat-effectiveness growth point.” China must also develop its own “asymmetrical combat theory” based on special weapons:

The side with the marked technical inferiority can still use certain special means to conduct nuclear, biological, and chemical strikes, either destroying the enemy’s advanced information network, or striking with modern guerrilla warfare tactics such as unconventional warfare and terrorism. So developing our own asymmetrical combat theory, and studying new battle tactics that will enable us to win on high-tech terms, is our unavoidable choice.¹⁸

Two senior PLA officers observed that NATO’s “asymmetrical” strikes employed “a number of new combat modes.” Allied Force consisted of “a series of informationalized, digitized, and networked combat operations that surpassed those in the Gulf War.” In their view, networked fighting centers will replace individual fighting platforms in future warfare, and networked military organizations will replace “tree-shaped” military organizations. The United States uses air raids, EW,

and information-control operations to maximize the asymmetric advantages of its high technology. Therefore, the PLA should "learn and master" anti-air-raid, anti-electronic-warfare, and anti-information-control operations.¹⁹

Information Warfare

Reporter Ye Lu observed that the US goal is to gain mastery of battlefield information and that the information enhancement of US weapons systems is already "an order of magnitude" greater than in the Gulf War. Before initiating combat,

reconnaissance satellites, relay satellites, high-altitude reconnaissance aircraft, and low- and medium-altitude pilotless aircraft of all kinds are to be deployed in continuous, uninterrupted, all around, dynamic intelligence reconnaissance against military and civilian targets in Yugoslavian territory . . . while at the same time numerous intelligence organizations and every means of intelligence collection are to be marshaled to conduct repeated position fixing and simulated attack exercises against all military and non-military targets that might be encountered in the battlefield to come.²⁰

Ye considered that despite all its advantages, the United States did not gain "information supremacy" in Yugoslavia. This he attributed to the expansion of the information domain through radio and computer networks that enable "both aggressors and defenders to attack and counterattack to the best of their abilities." Ye drew the following conclusions from Allied Force:

- China should research and develop high-tech precision weapons and should upgrade the information systems associated with existing weapons.
- China should develop IW equipment and techniques, especially those that can "reliably put constraints on the power of hostile forces."
- China needs a "corps of knowledgeable and experienced military information security personnel."

- China should create her own software for national defense and should find military applications for civilian high technologies.²¹

Senior Col Wang Baocun noted that US space systems played a crucial role in Allied Force. Some 50 reconnaissance, communications, data-relay, and weather satellites were used (this total probably includes 24 GPS navigation satellites). To complement the space systems, NATO extensively employed aerial reconnaissance, ground stations, and "more than 400 spies" to collect visual, communications, and electronic intelligence.²² Unfortunately, Wang provided no indication of the source of this number (four hundred).

Wang considered that since "beheading" is a major principle of IW, NATO struck the Yugoslav command system first. Information was a major enabler of this strike and of the air campaign that followed. For example, the MiG-29 was not intrinsically inferior to NATO's fighters, but NATO's early-warning-and-control aircraft provided information that placed the MiGs at a decisive disadvantage. NATO EW planes cut Yugoslav forces off from their sources of information and prevented them from organizing an effective defense. NATO used television and radio propaganda for psychological warfare and publicized the effectiveness of the air strikes and the brutality of the Serbs, thereby winning the support of their own people and demoralizing the enemy. At the same time, destruction of the Serbian broadcast facilities hindered the Serbs from broadcasting their version of events and informing their people.²³

Wang did not believe that NATO gained total "information supremacy." He contended that the FRY's defensive IW campaign was quite effective, principally due to intelligent use of camouflage, concealment, and deception. Command centers were dug in deeply, and radars were turned on only intermittently. Military equipment was dispersed and camouflaged, and movement took place only when NATO satellites were not overhead. The

FRY also used web sites to spread its version of events and spammed NATO sites. Wang concluded that all these measures denied NATO complete success and enabled the FRY to preserve its strength and maintain some degree of effective C.²⁴

NATO Mistakes and Weaknesses

Chinese authors generally viewed the United States as casualty-averse. Journalist Yuan Bingzhong, for example, predicted in May that the United States would not launch a ground war because the complex terrain and stubborn defenders could create a “quagmire” that would lead to heavy casualties and an upsurge in antiwar sentiment.²⁵ Another author claimed that “modern Americans have a fragile psychology and very poor endurance for war.”²⁶

Somewhat at odds with the extensive commentary on NATO’s sophisticated precision-bombing capabilities were the frequent complaints about the “indiscriminate” nature of the air campaign. Chinese journalists asserted that “homes, schools, hospitals, industrial plants, and communications infrastructures” were wantonly bombed. Some authors argued that this was a deliberate effort to pressure the Serbs psychologically.²⁷

Space scientist Wang Zudian considered that Allied Force demonstrated what is now “the basic mode for recent and future high-tech regional war,” in which “cruise missiles are the vanguard, aerial strength is the main power, and the ground, sea, air, space, and electromagnetism are integrated.” However, Wang observed that because NATO made a number of mistakes, the air strikes failed to achieve their initial goals. Firstly, “the strategic airstrike was insufficiently prepared and failed to be a surprise attack.” The Yugoslavs had plenty of time to prepare for the attack and consult with Iraq on defensive methods. NATO could obtain and transmit pictures of targets on the battlefield in “approximately real time,” but terrain and bad weather still degraded accuracy. Moreover, according to Wang, “the United States does not dare to dis-

patch ground reconnaissance troops to conduct on-the-spot reconnaissance.” NATO sent in many spies, but Yugoslavia responded with

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intensive counterintelligence operations and also conducted “numerous e-mail attacks.”²⁸

Maj Gen Guo Anhua of the Army Command College faulted NATO for underestimating Yugoslavia—especially its air defenses. NATO failed to send enough electronic-countermeasures aircraft and did not have sufficient reserves of cruise missiles when the operation began. Guo criticized NATO for commencing operations in March, when unfavorable weather supposedly reduced the effectiveness of cruise missiles by 70 percent. Curiously, Guo, like many other Chinese authors, overestimated the number of US combat aircraft shot down (“more than 20”).²⁹ It is not clear whether Chinese authors uncritically accepted Serbian claims (and thus reached faulty conclusions about the effectiveness of Serbian air defenses) or whether they were aware of the true situation but cited the Serbian claims for propaganda purposes.

The Chinese Embassy Bombing

Chinese sources universally rejected the view that the bombing of the Chinese Embassy in Belgrade was an accident. One notes a range of views regarding the purpose behind the “conspiracy,” including the derailment of a political solution to the Balkans crisis and a test of China’s mettle. Unfortunately, we have no way of determining whether Chinese leaders actually believe these conspiracy theories.

Zhang Zhaozhong claimed that the embassy bombing could not have been accidental be-



Bombs from allied aircraft hit the Chinese Embassy in Belgrade on 7 May 1999.

cause the vast array of American intelligence means focused on Yugoslavia precluded such a mistake. He sardonically asked, "Why do you provide NATO with today's maps for today's bombing, and provide an old map for bombing the Chinese embassy?" He also observed that the use of B-2s from US territory showed that the order for the mission "was given by the United States in a manner concealed from NATO." The B-2 carried missiles that penetrated the embassy through the roof and then exploded on the ground floor. Therefore, the US goal was not to flatten the whole building but to destroy a specific target within the building—"a surgical strike to take out a vital organ."³⁰ This further supported the view that the bombing was no accident.

Zhang asserted that the deliberate bombing of the embassy served a number of purposes. The United States wanted to abort an unsatisfactory peace proposal and wanted to test Chinese reactions to a provocative move. It also wanted to see whether a strong stimulus could provoke internal chaos within China that would cause a change in China's orientation.³¹

Similarly, two reporters contended that the tactics and ammunition employed in the embassy attack indicated that it was "no accident." The authors insisted that alliance aircraft used either AGM-130 or AGM-154 missiles and that they were launched from two or three planes firing from different directions at high altitude. The purpose of the bombing, in their opinion, was to intimidate China

because after Kosovo, the United States expected to shift its strategic focus to Asia, where China would become the "main target of attack."³²

Columnist Jen Hui-wen described the bombing as a "planned and premeditated military provocation," the purpose of which was to punish China for supporting the FRY, probe China's reactions, and warn China not to use force against Taiwan. The bombing also sought to distract China from economic development and to "impose a heavy war burden on China."³³

Journalist Li Tzu-ching reported that the "premeditated" embassy bombing provoked a jingoistic clamor in the PLA, which vowed to settle the "blood debt" with the United States.³⁴ In response to the bombing, the PLA would seek to modernize its military equipment, train its troops for a high-tech war against the United States, and prepare for "triphibious modernized warfare over blockade and anti-blockade of the Taiwan Strait." The PLA could not match US conventional power; consequently, it would have to use nuclear weapons in a war with the United States. According to Li, the PLA General Staff proposed an expansion of the Second Artillery Corps and accelerated production of "tactical nuclear weapons and neutron weapons."³⁵ Interestingly, several other journalists argued that the United States would not have bombed Yugoslavia had that country been armed with nuclear weapons or other weapons of mass destruction.³⁶

Lessons for China

General Guo asserted that China's military reforms of 1993 did not go far enough because they "failed to pay sufficient attention to the favorite game of a strong high-tech enemy—long duration, multiple targets, large area, intensive precision strikes." Therefore, China should study ways to resist these strikes, to thwart long-range reconnaissance, to use ground forces to defeat air forces, and to use "low altitude fires to control high altitude fires." Solutions to these problems will

require China to upgrade its technology, tactics, and national psychology.³⁷

Guo argued that the Yugoslavians won a moral and psychological victory against a materially superior enemy. They fought a “guerrilla air war” while maintaining their national pride and confidence and refused to give up. A “people’s war under high-tech conditions” requires the involvement of every sector of society;³⁸ therefore, China’s national defense education should be increased, and national pride and confidence should be fostered throughout the country.³⁹

Guo claimed that the Kosovo conflict demonstrated that, given high-quality military personnel, an inferior force could overcome a superior enemy in a high-tech war. Thus, education and training should have a high priority within the PLA, and Chinese soldiers should be taught how to use low-tech equipment creatively to defeat a high-tech enemy. The author called for intensive study of US equipment, tactics, techniques, and procedures in order to learn their weaknesses and defeat them.⁴⁰

Finally, NATO air strikes applied strategic and operational weapons (long-range bombers and cruise missiles) against tactical targets, allowing NATO to attack targets in hours or minutes that could formerly be engaged only from the ground over the course of several months. Because such strikes required the suppression of enemy air defenses, the survival of air defenses is of great importance. The author concluded that “we must do our best to combine defense of selected spots and the whole area in our deployment, extensively achieve mobility in the battlefield, combine cover for specific targets with cover for whole areas, preserve our own strength in mobile operations, and eliminate or weaken the enemy.”⁴¹

Maj Gen Su Enze of the Air Force Command Academy agreed that China has not paid enough attention to the problem of withstanding air strikes because the previous consensus was that “future wars will mainly consist of attack and defense on land.” He ar-

gued that China should improve her capabilities in four areas:

- *Civil Defense:* The people should raise their air-defense consciousness, and city planning and construction should take air defense into account.
- *EW:* This is a weak link in China’s defenses, requiring further research.
- *“Air Defense from the Land”:* China will have little capability for defensive air-to-air combat in the immediate future, and thus must mount her air defense from the ground. China requires quick-firing weapons that use terrain for concealment and that can employ highly flexible strategies.
- *Organization:* Centralized command is too easy to disrupt or destroy. China should create a networked system in which each node is capable of some independent action.⁴²

Song Xinzhi claimed that NATO air strikes were not entirely successful because the FRY managed to employ clever tactics to frustrate a superior opponent. He highlighted Yugoslavia’s use of mobility, dispersion, camouflage, concealment, deception, and its decision to permit some targets to be destroyed in order to conserve defenses for counterattacks. He contrasted this with Iraq’s rigid efforts to protect key targets during the Gulf War, which quickly resulted in the annihilation of the Iraqi defenses.⁴³

Song considered that a modern air defense system should seek to impose at least 1 percent combat losses on the enemy over a prolonged period of time. This requires the defender to preserve a counterattack capability and to avoid defending any given place to the death. China should focus on enhancing the survivability of its air defenses, principally by improving their mobility. Air defense weapons must be able to fire quickly and then move before the enemy responds. Fighter planes must have short takeoff and landing capability and be able to operate from primitive strips. All forces must be sheltered and cam-



CSS-2 intermediate-range ballistic missile being prepared at an alternate launch site during tensions in the Taiwan Straits in 1998

ouflaged, and there must be active measures to defeat enemy precision-guided weapons: "Smoke screens are very effective for countering laser-guided bombs; spraying water to reduce the temperature of infrared-guided bombs is rather effective; and jamming navigational signals will make GPS-guided bombs lose control. Setting up decoys and electronic deception means could also play important roles in protecting the safety of targets."⁴⁴

Huang Guanghan noted that "long-range air attacks have become an important pattern of modern war." Such attacks can be launched rapidly, involve multiple means of attack, and cause tremendous destruction and casualties. Typically, the full depth of the defending country is attacked over a long period of time, and attacks focus on command, control, and communications centers; missile facilities; airfields; and transportation hubs. Therefore, China must learn to camouflage and protect such major targets, and one method involves using underground shelters. China should create "in-depth protection works . . . in possible battlefields . . . major cities and at strategic points." Command posts and communications hubs should be hidden deeply underground, and full use should be made of "cliffs, valleys, caves, ravines, jungles, and other natural shelters and structures." Smoke screens could be used as an additional camouflage. Huang observed that deception was of fundamental importance in Yugoslavia: "In future war, we should also skillfully set up false targets and false positions to

confuse and deceive the enemy; we should use imitative materials, civilian vehicles, and scrapped weapons and equipment to set up fake command posts, fake airports, fake radar stations, and fake positions to attract the enemy's firepower and to preserve our combat forces."⁴⁵

Movement serves to enhance survivability; therefore, "firepower and troops should be extensively mobile." An "integrated air-ground strike system" should be prepared to strike back at the enemy and to hit "boldly and powerfully" at enemy weaknesses and vital centers.⁴⁶

Huang emphasized the role of information as an enabler of both enemy long-range strikes and friendly counterstrikes. In his view, "our army should step up the building of a theater digitized information network and build a relatively systematic, complete . . . all-army information system." For defensive purposes, China requires the capability "to disrupt the enemy's intelligence transmission system and to weaken his ability to wage information warfare."⁴⁷

Yao Yunzhu, a member of the Foreign Military Department of the AMS, argued that, given the disparity in strength between the opponents, the FRY's performance was "exceptional." The FRY adopted the correct combat strategy: "to protect real strength and persist in resistance." The FRY refused to confront NATO strength directly; instead, the Yugoslavians hid their combat aircraft and antiaircraft missiles and preserved their radars by turning them on only sporadically. Yugoslavian forces were dispersed in difficult terrain, hidden among civilians in Kosovo, and fought even when isolated from higher command levels. Yao believed that China should adopt all these measures in the future.⁴⁸

Four PLA officers from the Guangzhou Military Region held a forum on the implications of Allied Force and published a summary in *Jiefangjun Bao*. They reached the somewhat banal conclusion that "high-tech training on the basis of existing armament" should be a priority in the PLA because such training could potentially compensate for de-

ficiencies in equipment. Moreover, Allied Force showed that "counter-air raid combat" deserves close study. The Yugoslavs made clever use of climate, terrain, flexible C², and high-quality, well-trained officers and enlisted men in their resistance to NATO strikes. China should learn from these techniques.⁴⁹

Unrestricted Warfare

In February 1999, the PLA Literature and Arts Publishing House issued *Unrestricted Warfare*, a book written by two PLA air force political officers, Senior Col Qiao Liang and Senior Col Wang Xiangsui. The venue for publication and the laudatory reviews of the book in official publications suggested that *Unrestricted Warfare* enjoyed the support of some elements of the PLA leadership. The Western press quoted various sensational passages from the book and described it in terms that verged on hyperbole.⁵⁰

The book was not a blueprint for a "dirty war" against the West but a call for innovative thinking on future warfare. The authors presented a broad overview—somewhat reminiscent of the Tofflers'—of recent changes in technology and international politics that will shape future warfare. In their opinion, the power of the nation-state has declined with the rise of both global organizations and high technology. The future battlefield will be "everywhere"—from the human mind, to the electromagnetic spectrum, to cyberspace, to outer space—and everyone will be a potential combatant, including hackers, genetic engineers, and financiers. Warfare will no longer be the sole province of nation-states and soldiers and will not be resolved only with military means. Instead, "all means" will be used to fight these wars—including trade warfare, financial warfare, terrorism, ecological warfare, computer-network attack, media warfare, drug warfare, and psychological warfare. "Extreme means" need not always be used, but victory will go to those who best combine all the resources at their disposal without regard for boundaries, restrictions, rules, laws, or taboos.



Chinese military exercising cyber warriors in 1999

Because the book was published before Allied Force, it contains no specific commentary on that operation. However, the authors were interviewed later in 1999 and addressed the application of their theories to the war in Kosovo. Qiao criticized Slobodan Milosevic for "playing by the rules" when the rules favored the United States. Qiao argued that Milosevic should have sent small teams armed with surface-to-air missiles into Western Europe to attack NATO planes as they took off. A terrorism campaign in Europe might have convinced some countries to withdraw basing rights from US forces. Qiao also noted that the United States did not restrict itself to "purely military" means in Kosovo, as "media war, news restrictions, trade sanctions, and such financial attacks as freezing the other party's assets" were employed against the FRY.⁵¹

Conclusion

If these articles accurately reflect Chinese opinions, then the Chinese believe that long-range precision strikes will play a very prominent role in any future Sino-American conflict. This contrasts with their previous view, held since the Gulf War, that future warfare would be primarily characterized by a clash of ground forces. They consider that American long-range precision strikes would be preceded by intensive overhead reconnaissance, EW, and computer-network attack. Initial American targets would include airfields, air defense sites, and C² nodes.

The Chinese recognize that they will not be able to confront an American long-range precision strike campaign directly for quite some time; therefore, they hope to defend themselves through asymmetric methods. Potentially, these could include passive defenses (deep underground shelters, camouflage, concealment, and dispersion), active defenses (smoke screens, sprays, and jamming), and deception (multispectral decoys). The PLA air force would not fly except in exceptionally favorable circumstances or when an opportunity arose for a decisive counterblow. Meanwhile, the PLA would seek to attrit the US Air Force through the use of air defense guns and missiles that could fire rapidly and then immediately move. The PLA would focus its computer-network attacks on US

communications links and would not exclude the use of weapons of mass destruction.

One can infer several other significant conclusions from Chinese writings: because the Chinese view the United States as casualty-averse, they would probably try to inflict maximum casualties on US forces and, possibly, the US civilian population. They would certainly attempt to hide their own forces among the Chinese civilian population. Finally, many Chinese writings focus on the crucial importance of US space assets, suggesting that the Chinese would seek to find ways to deny, disrupt, or degrade these assets, either through antisatellite warfare or other less direct means such as attacks by special operations forces on ground stations. □

Notes

1. Michael Pillsbury, ed., *Chinese Views of Future Warfare* (Washington, D.C.: National Defense University Press, 1997), xvii.
2. In his excellent book, Mark A. Stokes notes that China's NDU and AMS have "flooded China's strategy community with writings on information warfare." *China's Strategic Modernization: Implications for the United States* (Carlisle Barracks, Pa.: Strategic Studies Institute, US Army War College, 1999), 28. Many of the authors translated by Pillsbury are affiliated with these institutions.
3. Other publications surveyed for this article included *Xinhua* (the official Chinese news agency), *Zhongguo Tongxun She* (a PRC-owned news agency), *Keji Ribao* (*Science and Technology Daily*), *Ta Kung Pao* (a PRC-owned daily newspaper), and *Cheng Ming* (a non-PRC-owned monthly magazine, which, according to the Foreign Broadcast Information Service [FBIS], has a "tendency to sensationalize").
4. The Communist Party of China Politburo laid out these essential principles after Jiang Zemin returned from Europe in early April 1999. See Yueh Shan, "Beijing Sets Forth New World War Theory," *Cheng Ming* (Hong Kong), 1 May 1999, in FBIS-CHI-1999-0516; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Yueh is a reporter.
5. He Chong, "The U.S. Purpose in Instigating NATO to Attack Yugoslavia," *Zhongguo Tongxun She* (Hong Kong), 26 March 1999, in FBIS-CHI-1999-0326; Zhang Xiao, "The Essence of NATO's New Strategic Concept," *Guangming Ribao* (Beijing), 28 April 1998, in FBIS-CHI-1999-0507; Wang Naicheng, "Failure of the New Strategic Concept," *Jiefangjun Bao* (Beijing), 22 May 1999, in FBIS-CHI-1999-0601; and Yan Zheng, "What Are NATO's Motives in Bombing the Federal Republic of Yugoslavia?" *Renmin Luntan* (Beijing), 16 May 1999, in FBIS-CHI-1999-0516; all citations on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. He, Yan, and Zhang are journalists. Wang is a researcher at the China Institute for International Strategic Studies.
6. Wei Wei, "Ulterior Motives in Military Intervention," *Jiefangjun Bao* (Beijing), 25 March 1999, in FBIS-CHI-1999-0331; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>.
7. Li Yung-kang, "U.S. World Strategy Viewed in Kosovo Crisis," *Ta Kung Pao* (Hong Kong), 26 May 1999, in FBIS-CHI-1999-0619; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Li's identity is unknown, but he is probably a journalist.
8. The best-known separatist issue in China concerns Tibet, but ethnic tension also exists in Inner Mongolia and Xinjiang. In Xinjiang, the westernmost portion of China, resides a large population of ethnically Turkic Sunni Muslims. Xinjiang has seen constant unrest since the 1980s, including terrorist bombings, assassination of government officials, riots, and street fighting. The territorial dispute in the South China Sea involves the Spratly Islands (claimed by China, Taiwan, Vietnam, Malaysia, the Philippines, and Brunei) and the Paracel Islands (claimed by China, Taiwan, and Vietnam). China expelled Vietnamese troops from the Paracels in 1974 and fought a naval battle with Vietnam over the Spratlys in 1988. See Andrew J. Nathan and Robert S. Ross, *The Great Wall and the Empty Fortress: China's Search for Security* (New York: W. W. Norton, 1997), 115–17 and 196–200.
9. Ma Ling, "Interview with Yao Youzhi: U.S. Strategy for the 21st Century," *Ta Kung Pao* (Hong Kong), 3 May 1999, in FBIS-CHI-1999-0515; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Ma is a reporter.
10. Cheng Guangzhong, "The Kosovo War and the US Python Strategy," *Ta Kung Pao* (Hong Kong), 2 June 1999, in FBIS-CHI-1999-0625; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>.
11. Ibid.
12. Stokes, 12–13. See also David Shambaugh and Richard H. Yang, eds., *China's Military in Transition* (Oxford: Clarendon Press, 1997), 192–94.
13. See, for example, Senior Col Shen Kuiguan in Pillsbury, 213–19.

14. Zhang Zhaozhong, in "Discussion of the Kosovo Crisis among Experts at the National Defense University," *Jiefangjun Bao* (Beijing), 13 April 1999, in FBIS-CHI-1999-0518; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>.
15. Ibid.
16. Su Size, "Kosovo War and New Military Theory," *Jiefangjun Bao* (Beijing), 1 June 1999, in FBIS-CHI-1999-0701; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Su's background is unclear.
17. Jia Weidong, "Future Warfare Trends Viewed from Kosovo," *Jiefangjun Bao* (Beijing), 17 April 1999, in FBIS-CHI-1999-0510; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Jia is a researcher at the General Staff headquarters and an army senior colonel.
18. Ibid.
19. Zhu Wenquan and Zhao Taizhong, "High-Tech Learning in Light of the Kosovo War," *Jiefangjun Bao* (Beijing), 25 May 1999, in FBIS-CHI-1999-0625; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Lt Gen Zhu Wenquan was recently promoted.
20. Ye Lu, "Strategic Thought on Weapons Development," *Kepi Ribao* (Beijing), 20 May 1999, in FBIS-CHI-1999-0621; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Ye's background is unclear.
21. Ibid.
22. Wang Baocun, "Information Warfare in the Kosovo Conflict," *Jiefangjun Bao* (Beijing), 25 May 1999, in FBIS-CHI-1999-0623; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Senior Col Wang Baocun frequently writes about information warfare.
23. Ibid.
24. Ibid.
25. Yuan Bingzhong, "Why Is the United States Vague about a Ground War?" *Renmin Ribao* (Beijing), 25 May 1999, in FBIS-CHI-1999-0525; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Yuan is a journalist.
26. Liang Jie, "Interview with Military Expert Quan An," *Guangming Ribao* (Beijing), 15 June 1999, in FBIS-CHI-1999-0627; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Liang is a journalist, and Quan An "works for a military organ and has long been involved in the research on military theories."
27. "NATO Using Banned Weapons in FRY," 21 May 1999, in FBIS-CHI-1999-0521. See also Ma Shikun and Zhang Yong, "How Can the United States Extricate Itself from a Dilemma?" *Renmin Ribao* (Beijing), 24 May 1999, in FBIS-CHI-1999-0525. Ma and Zhang are US-based reporters. Wang Zhimin, "NATO in Dilemma in Yugoslav War," 26 April 1999, in FBIS-CHI-1999-0427. Wang is a reporter. Xie Wenqing and Liu Wanping, "International Observation," *Jiefangjun Bao* (Beijing), 23 May 1999, in FBIS-CHI-1999-0601; all citations on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Xie and Liu are reporters.
28. Wang Zudian, "The Offensive and Defensive of High-Technology Arms Equipment," *Xinhua* (Beijing), 24 May 1999, in FBIS-CHI-1999-0526; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Wang is a researcher at the Space Technology Information Research Institute of China.
29. Guo Anhua, "Evaluation and Thoughts on Kosovo War Situation," *Jiefangjun Bao* (Beijing), 4 May 1999, in FBIS-CHI-1999-0520; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Maj Gen Guo Anhua is superintendent of the Army Command College.
30. Ma Ling, "Interview with Renowned Military Commentator Zhang Zhaozhong," *Ta Kung Pao* (Hong Kong), 17 May 1999, in FBIS-CHI-1999-0518; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Ma is a journalist.
31. Ibid.
32. Su Chin-lung and Hsueh Hsiang, "Embassy Bombing Pre-meditated," *Hsin-Tai Chun-Shih* (Hong Kong), 11 June 1999, in FBIS-CHI-1999-0626; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. The authors' backgrounds are unknown.
33. Jen Hui-wen, "China's Reaction to the Bombing of Its Yugoslav Embassy," *Hsin Pao* (Hong Kong), 14 May 1999, in FBIS-CHI-1999-0517; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Jen is a reporter and columnist.
34. Li Tzu-ching, "The Chinese Military Clamors for War," *Cheng Ming* (Hong Kong), 1 June 1999, in FBIS-CHI-1999-0626; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>.
35. Ibid.
36. Xiao Feng, "World Trends under U.S. Global Strategy," *Renmin Ribao* (Beijing), 31 May 1999, in FBIS-CHI-1999-0601; and Ma Shikun and Zhang Yong, "United States: Winner or Loser?" *Renmin Ribao* (Beijing), 11 June 1999, in FBIS-CHI-1999-0611; both citations on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Ma and Zhang are journalists. Xiao's background is unknown.
37. Guo Anhua.
38. Ibid.
39. Another author argued that "ethnic cohesiveness" and "lofty patriotism" enabled the Serbs to withstand the NATO air strikes: "Soft force formed from national morale and will has been the most important factor in defending against the foreign enemy. It has been a valuable treasure that is most worthy of learning from." Wang Yu in "Discussion of the Kosovo Crisis." Wang is a candidate for a master's degree at NDU.
40. Guo Anhua.
41. Ibid.
42. Su Enze in "Discussion of the Kosovo Crisis." Maj Gen Su Enze is a professor of the Air Force Command Academy.
43. Song Xinzhi, "Transform Air Defense Concepts," *Jiefangjun Bao* (Beijing), 27 April 1999, in FBIS-CHI-1999-0507; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Song's background is unknown.
44. Ibid.
45. Huang Guanghan, "Countermeasures against Long-Range Air Attacks," *Jiefangjun Bao* (Beijing), 22 June 1999, in FBIS-CHI-1999-0710; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. Huang's background is unknown.
46. Ibid.
47. Ibid.
48. Yao Yunzhu in "Discussion of the Kosovo Crisis." Wan Fayang, of the Office of the 2d Artillery Headquarters, made essentially similar observations in the same article.
49. Duan Zhiming, Mei Lijin, Liu Jianmin, and Xiang Zihui, "Warning from the Flame of War in Kosovo," *Jiefangjun Bao* (Beijing), 20 April 1999, in FBIS-CHI-1999-502; on-line, Internet, 3 July 1999, available from <http://199.221.15.211>. The authors' backgrounds are unknown.
50. See, for example, John Pomfret, "China Ponders New Rules of Unrestricted War," *Washington Post*, 8 August 1999, A1; and David Harrison and Damien McElroy, "China's Military Plots 'Dirty War' against the West," *Electronic Telegraph*, 17 October 1999.
51. Sha Lin, "Two Senior Colonels on No-Limit Warfare," *Zhongguo Qingnian Bao* (Beijing), 28 June 1999, in FBIS-CHI-1999-728; and Ma Ling, "Interview with Qiao Liang," *Ta Kung Pao* (Hong Kong), 19 September 1999, in FBIS-CHI-1999-1005; both citations on-line, Internet, 18 October 1999, available from <http://199.221.15.211>.